These SRMs are for calibrating equipment and apparatus used to measure various components of gas mixtures and atmospheric pollutants. The typical gas mixture is supplied in a DOT 3AL specification aluminum (6061 alloy) cylinder with a nominal pressure exceeding 1.2.4 mPa that provides the user with approximately 0.73m3 of usable mixture. Due to increasing customer demand, these primary gas mixtures are in short supply and may not be readily available for sale. In such cases, a NIST traceable reference gas described below may be substituted.

A NIST Traceable Reference Material (NTRM) is a reference material produced by a commercial supplier with a well-defined traceability to NIST. This traceability is established via criteria and protocols defined by NIST that are tailored to meet the needs of the metrological community to be served. The NTRM concept was established to allow NIST to respond to the increasing needs for high quality reference material by leveraging its relatively fixed human and financial resources with secondary reference material producers. Reference material producers adhering to NIST defined protocol requirements are allowed to use the NTRM trademark to identify their product.

The gas NTRM program was established in 1992 in partnership with the U.S. EPA and specialty gas companies as a means for providing end-users with the wide variety of certified gas standards needed to implement the Emissions Trading provision of the 1990 Clean Air Act. Gas NTRMs are produced and distributed by specialty gas companies with NIST oversight of the production and maintenance, and direct involvement in the analysis. NTRMs can be developed for any pollutant, concentration, and balance gas combination for which a NIST primary standard or SRM exists. The gas standards prepared according to this program are related, within known limits of uncertainty, to specific gaseous primary standards maintained by NIST.

SRM Description Unit of Issue	1 umol/mol)			(Nominal 500 µmol/mol	(Nominal 1000 µmol/mol	(Nominal 1500) µmol/mol	(Nominal 2500) µmol/mol)) µmol/mol)	10 µmol/mol)	50 µmol/mol)	in Air (Nominal 100 µmol/mol	500 µmol/mol)	7 % mol/mol)	365 µmol/mol)	in Nitrogen (Nominal 10 µmol/mol)	50 µmol/mol)	,		Carbon Monoxide in Nitrogen (Nominal 1000 µmol/mol) (cylinder)	50 μmol/mol)
Certified Component	1 µmol/mol	CH ₄	CH ₄ : C ₃ H ₈	SO ₂	so ₂	SO ₂	so ₂	C ₃ H ₈	C ₃ H ₈	CO ₂	CO ₂	СО	СО	СО	СО	CO	NO			
Nominal Amount-of-substance fraction	CH ₄	10 µmol/mol	4:1 µmol/mol	500 µmol/mol	1000 µmol/mol	1500 µmol/mol	2500 µmol/mol	3 µmol/mol	10 µmol/mol	50 µmol/mol	100 µmol/mol	500 µmol/mol	7 % mol/mol	365 µmol/mol	10 µmol/mol	50 µmol/mol	100 µmol/mol	500 µmol/mol	1000 µmol/mol	50 µmol/mol

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SRM Description	(Nominal 100	Nitric Oxide in Nitrogen (Nominal 250 µmol/mol)	(Nominal 500	Nitrogen	Sulfur in Nitrogen (Nominal 50 µmol/mol)	(Nominal 100	Nitrogen (Nominal 3500	1800b Eighteen Non-Methane Hydrocarbon Compounds in Nitrogen (Nominal 5 nmol/mol)	Toxic Volatile Organic Compounds in Nitrogen (Nominal 5.0 nmol/mol)	in Air (Nominal 10	Carbon Monoxide in Air (Nominal 20 µmol/mol)	42	(Nominal 500	(Nominal 0.5 %	1.0 %	(Nominal 1.5 %	(Nominal 2.0 %	(Nominal 2.5 %	3.0 %	(Nominal 3.5 %
Unit of Issue	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(6 L Water Volume Cyl)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)
Certified Component	NO	NO	NO	NO	SO ₂	SO ₂	SO ₂	(Eighteen components in small cylinder)	(Thirty components)	СО	CO	CO	CO ₂	CO ₂	CO ₂	CO ₂	CO ₂	CO ₂	CO ₂	CO ₂
Nominal Amount-of-substance	100 µmol/mol	250 µmol/mol	500 µmol/mol	1000 µmol/mol	50 µmol/mol	100 µmol/mol	3500 µmol/mol	5 nmol/mol	5 nmol/mol	10 µmol/mol	20 µmol/mol	42 µmol/mol	500 µmol/mol	0.5 % mol/mol	1.0 % mol/mol	1.5 % mol/mol	2.0 % mol/mol	2.5 % mol/mol	3.0 % mol/mol	3.5 % mol/mol

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SRM Description	2627a	2628a	2629a*	2630*	2631a*	2635a*	2636a*	2637a*	2638a*	2639a	2640a	2641a	2642a*	2644a	2646a	2647a	2657a*	2658a*	2659a*	2660a* Total Oxides
	(Nominal 5	` 10	(Nominal 20	(Nominal 1500	Nitric Oxide in Nitrogen (Nominal 3000 µmol/mol)	Carbon Monoxide in Nitrogen (Nominal 25 µmol/mol)	in Nitrogen (Nominal 250	in Nitrogen (Nominal 2500	in Nitrogen (Nominal 5000	Carbon Monoxide in Nitrogen (Nominal 1 % mol/mol)	Carbon Monoxide in Nitrogen (Nominal 2 % mol/mol)	Carbon Monoxide in Nitrogen (Nominal 4 % mol/mol)	(Nominal 8 %	in Nitrogen (Nominal 250	(Nominal 1000	(Nominal 2500	Oxygen in Nitrogen (Nominal 2 % mol/mol)	(Nominal 10 %	(Nominal 21 %	of Nitrogen (NOx) in Air
Unit of Issue	(cylinder)	(cylinder)	(each)	(each)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)	(cylinder)
Certified Component	NO	NO	NO	NO	NO	co	co	co	co	co	co	co	co	СзНв	СзНв	СзНа	02	02	02	NO _X
Nominal Amount-of-substance fraction	5 µmol/mol	10 µmol/mol	20 µmol/mol	1500 µmol/mol	3000 µmol/mol		250 µmol/mol	2500 µmol/mol	5000 µmol/mol	1 % mol/mol	2 % mol/mol	4 % mol/mol	8 % mol/mol	250 µmol/mol	1000 µmol/mol	2500 µmol/mol	2 % mol/mol	10 % mol/mol	21 % mol/mol	100 µmol/mol

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SRM Description Unit of Issue	2730 Hydrogen Sulfide in Nitrogen (Nominal 5 µmol/mol) (cylinder)	Sulfide in Nitrogen (Nominal 20 µmol/mol)	2735 Nitric Oxide in Nitrogen (Nominal 800 µmol/mol) (cylinder)	,	,	,	2741a Carbon Monoxide in Nitrogen (Nominal 13 % mol/mol)	16 % mol/mol)	50 μmol/mol)	Methane in Air (Nominal 100 µmol/mol) (cylinder)	,	2765 Propane in Air (Nominal 100 nmol/mol)
Certified Component	H ₂ S	H ₂ S	NO	NO	NO	co	CO	CO ₂	CH ₄	CH ₄	C ₃ H ₈	C ₃ H ₈
Nominal Amount-of-substance fraction	5 µmol/mol	20 µmol/mol	800 µmol/mol	500 µmol/mol	1000 µmol/mol	10 % mol/mol	13 % mol/mol	16 % mol/mol	50 µmol/mol	100 µmol/mol	0.25 µmol/mol	100 nmol/mol